ABSTRACT OF THE DISCLOSURE

In measuring the position of a bonding tool accurately in offset correction in a bonding apparatus, the tool is moved to approach a reference member, the tool is illuminated with a reference pattern by a laser diode, and the deviation between the reference member and tool in one horizontal direction is measured based upon the image of the reference pattern projected on the tool. A position detection camera images the tool in another horizontal direction, thus measuring the deviation of the tool and reference member. The position detection camera is moved to approach the reference member, and the deviation between the position detection camera and the reference member is measured by the position detection camera. The accurate offset amounts between the position detection camera and the tool are determined based upon these measured values and amounts of movement of the position detection camera and the tool.